#### CHEMICAL CONTROL OF COMMON FOREST & SHADE TREE PESTS

Mark Harrell, Forest Pest Specialist Nebraska Forest Service March 1999 (b)

This information is intended as a guide to the chemical control of common insect pests and diseases of forest and shade trees. This is not a complete list of all pesticides available. Other methods of control that do not involve the use of pesticides may be effective against certain pests and should be considered before a pesticide is used.

Trade names have been used for convenience. No endorsement is implied, and no discrimination against similar products not listed is intended. No guarantee of effectiveness is made. Some pesticides may not be appropriate for certain trees or under certain conditions. Always read and follow the instructions and precautions on the pesticide container.

APRIL -CONIFER PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide	
Aphids	Pine	1	Soil treatment: Use prior to infestation if a serious problem is expected. Has a 60-day translocation delay.	Imidacloprid (Merit)	
Ips bark beetles	Pine	1	Apply in April prior to earliest beetle attack or when recently cut pine logs are brought near living pines.	Chlorpyrifos (Dursban for commercial applicators) Carbaryl (Sevin) Lindane	
Pine bark adelgid Pine	Pine	1	In dormant season just before bud break (April).	Dormant oil Horticultural oil/ Growing season oil	
		1	Soil treatment: Use prior to infestation if a serious problem is expected. Has a 60-day translocation delay.	Imidacloprid (Merit)	
	Pine Spruce	1	In dormant season just before bud break (April).	Dormant oil Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color.	
		1	Soil treatment: Apply in April to be effective in June. Has a 60-day translocation delay.	Imidacloprid (Merit)	
Sawflies	Pine	1	When larvae appear (mid- to late April).	Carbaryl (Sevin) Imidacloprid (Merit) Acephate (Orthene) Malathion	
Spruce spider mite	Spruce Juniper Pine	1	In dormant season just before bud break (April).	Dormant oil Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color.	
		2	When mites are detected	Horticultural oil/ Growing season oil	

			(April to May, and September to October). Repeat in 7 to 10 days.	NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Twospotted spider mite	Juniper Pine Spruce	1	In dormant season just before bud break (April).	Dormant oil Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color.
		2	When mites are detected (April through summer). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Zimmerman (Dioryctria) pine moths	Pine	2	Second week of April and second week of August.	Chlorpyrifos (Borer & Leaf Miner Spray; Dursban for commercial applicators; use lilac borer rate) Lindane
			Before the end of April if too late for the April spray above.	Dimethoate
Cyclaneusma needlecast	Pine (mostly Scotch)	4+	Before bud break (April). Repeat at 6 to 8-week intervals until fall or monthly during periods of frequent rainfall.	Chlorothalonil (Daconil, Bravo)
Sphaeropsis (Diplodia) blight	Pine	2	During third week of April and 10 to 14 days later.	Bordeaux mixture Liquid copper (Tenn-Cop/Camelot)
		3	First at bud break (April), second just before needles emerge, third 10 days later.	Thiophanate-methyl (3336, Fungo) Benomyl (Benlate)

# APRIL -BROADLEAF TREE PESTS

Insect/Disease	Tree	App	lication Number and Date	Pesticide
Lace bugs	Sycamore Hackberry Elm, Oak Linden	1	Soil treatment: Apply in April to be effective in June. Has a 60-day translocation delay.	Imidacloprid (Merit)
Oystershell scale	Ash Maple	1	In dormant season just before bud break (April).	Dormant oil Horticultural oil/ Growing season oil
		1	Soil treatment: Apply in April to be effective in June. Has a 60-day translocation delay.	Imidacloprid (Merit)
Spider mites	Many trees	2	When mites are present (as early as April, but mostly June through August). Repeat in 7	Dicofol (Kelthane) Insecticidal soap (Safer) Horticultural oil/ Growing season oil

			to 10 days.	
Tent caterpillars	Plum Cherry Apple Crabapple	1	When caterpillars and their webs appear (April).	Bacillus thuringiensis (Dipel) Carbaryl (Sevin) Acephate (Orthene) Malathion
Anthracnose	Sycamore	3-4	At budbreak (mid-April) and repeat 2 or 3 times at 7 to 14-day intervals.	Chlorothalonil (Daconil) Thiophanate-methyl (3336, Fungo) Liquid copper (Tenn-Cop/Camelot)
	Ash Maple Oak Walnut	3-4	At budbreak (mid-April) and repeat 2 or 3 times at 7 to 14-day intervals. Damage is seldom serious enough to justify a treatment.	Thiophanate-methyl (3336, Fungo)
Apple scab	Crabapple	5+	At 7 to 14-day intervals from prebloom (April) through rainy periods of growing season.	Chlorothalonil (Daconil) Thiophanate-methyl (3336, Fungo) Mancozeb (Dithane, Fore)
Cedar-apple rust	Crabapple Hawthorn	5+	As flower buds break (mid- April), at petal drop, and 3 or 4 additional sprays at 7 to 10- day intervals.	Chlorothalonil (Daconil) Mancozeb (Dithane, Fore)
Fire blight	Apple Pear	3-4	At pink stage (3 to 4 days before blossoms open, mid-April) and every 5 to 7 days until petal drop.	Streptomycin (Agri-Mycin)

# MAY -CONIFER PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide
Aphids	Pine	1	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Imidacloprid (Merit) Acephate (Orthene) Diazinon
Pine bark adelgid	Pine	1+	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Imidacloprid (Merit)
Pine needle scale	Pine Spruce	2-3	When eggs hatch and red crawlers appear (late May or early June). Repeat once or twice at 7 to 10-day intervals. Also when eggs hatch in July.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Acephate (Orthene) Diazinon Malathion
Pine tip moth	Pine	2-4	Third week of May and first week of July. Better control if also second week of June and third week of July.	Acephate (Orthene) Dimethoate Carbaryl (Sevin)

Spruce spider mite	Spruce Juniper Pine	2	When mites are detected (April to May, and September to October). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Twospotted spider mite	Juniper Pine Spruce	2	When mites are detected (April through summer). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Cyclaneusma needlecast	Pine (mostly Scotch)	4+	Before bud break (April). Repeat at 6 to 8-week intervals until fall or monthly during periods of frequent rainfall.	Chlorothalonil (Daconil, Bravo)
Dothistroma needle blight	Austrian pine	2	As needles are emerging (mid-May) and after new growth has occurred (mid- to late June).	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture
Phomopsis blight	Juniper Redcedar	2+	Every 7 to 10 days during wet periods in spring and summer (usually May to June).	Thiophanate-methyl (3336, Fungo) Mancozeb (Dithane, Fore)
Rhizosphaera needlecast	Spruce (mostly Colo. blue)	2+	When shoots are ½ to 2 inches in length (May) and 3-4 weeks later. If frequent rains occur, spray every 10-14 days through early July.	Chlorothalonil (Daconil, Bravo) Bordeaux mixture
Sirococcus shoot blight	Spruce (Colo. blue, Norway)	2	When shoots are ½ to 2 inches in length (May) and 3-4 weeks later.	Chlorothalonil (Daconil, Bravo)
Sphaeropsis (Diplodia) blight	Pine	2	During third week of April and 10 to 14 days later.	Bordeaux mixture Liquid copper (Tenn-Cop/Camelot)
		3	First at bud break (April), second just before needles emerge, third 10 days later.	Thiophanate-methyl (3336, Fungo) Benomyl (Benlate)

MAY -BROADLEAF TREE PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide
Aphids	Many trees	1+	Throughout the growing season as they appear (May to September).	Insecticidal soap (Safer) Horticultural oil/ Growing season oil Imidacloprid (Merit) Acephate (Orthene) Malathion Diazinon

Ash leaf-curling aphid	Ash	1	Just as leaves begin to curl (May).	Imidacloprid (Merit) Acephate (Orthene)
Bronze birch borer	Birch	2	Spray trunk and large branches in late May. Repeat in 3 weeks.	Chlorpyrifos (Borer & Leaf Miner Spray, Dursban for commercial applicators) Lindane
Elm leaf beetle	Elm	1	When larvae appear (May).	Imidacloprid (Merit) Carbaryl (Sevin) Acephate (Orthene)
		1	Soil treatment: Apply in March or previous fall to be effective in May. Has a 60-day translocation delay.	Imidacloprid (Merit)
Honeylocust plant bug	Honeylocust	1	When leaves fail to appear after budbreak (May) and small green bugs are present.	Insecticidal soap (Safer) Horticultural oil/ Growing season oil
Lilac (ash) borer	Ash	2	Spray trunk and large branches around May 10. Repeat in 3 weeks.	Chlorpyrifos (Borer & Leaf Miner Spray, Dursban for commercial applicators) Lindane
Oystershell scale	Ash Maple	2	When eggs hatch and light- yellow crawlers appear (late May). Repeat in 7 to 10 days. Repeat at August egg hatch if needed.	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Acephate (Orthene) Malathion
Spider mites	Many trees	2	When mites are present (as early as April, but mostly June through August). Repeat in 7 to 10 days.	Dicofol (Kelthane) Insecticidal soap (Safer) Horticultural oil/ Growing season oil
Anthracnose	Sycamore	3-4	At budbreak (mid-April) and repeat 2 or 3 times at 7 to 14-day intervals.	Chlorothalonil (Daconil) Thiophanate-methyl (3336, Fungo) Mancozeb (Dithane, Fore)
Cedar-apple rust	Crabapple Hawthorn	5+	As flower buds break (mid- April), at petal drop, and 3 or 4 additional sprays at 7 to 10- day intervals.	Chlorothalonil (Daconil) Mancozeb (Dithane, Fore)
Cherry leaf spot	Cherry	4+	At petal fall (May) and every 10 to 14 days as fruit matures.	Benomyl (Benlate)
Dutch elm disease	American elm	1	Preventive treatment: Trunk inject when leaves approach full size (late May). Therapeutic treatment: As soon as current year infections are seen (5% or less of crown infected; late June through August).	Thiabendazole (Arbotect)
		1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)

Fire blight	Apple Pear	3-4	At pink stage (3 to 4 days before blossoms open, mid-April) and every 5 to 7 days until petal drop.	Streptomycin (Agri-Mycin)
Oak wilt	Oak	1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)

## JUNE -CONIFER PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide
Aphids	Pine	1	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Imidacloprid (Merit) Acephate (Orthene) Diazinon
Bagworms	Juniper	1	After eggs hatch and small bags appear (June).	Bacillus thuringiensis (Dipel) Carbaryl (Sevin) Acephate (Orthene) Diazinon
Pine bark adelgid	Pine	1+	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Imidacloprid (Merit)
Pine needle scale	Pine Spruce	2-3	When eggs hatch and red crawlers appear (late May or early June). Repeat once or twice at 7 to 10-day intervals. Also when eggs hatch in July.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Acephate (Orthene) Diazinon Malathion
Pine tip moth	Pine	2-4	Third week of May and first week of July. Better control if also second week of June and third week of July.	Acephate (Orthene) Dimethoate Carbaryl (Sevin)
Spruce needle miner	Spruce	1	When current-year damage is first observed (June).	Carbaryl (Sevin) Diazinon
Twospotted spider mite	Juniper Pine Spruce	2	When mites are detected (April through summer). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Brown spot	Scotch & White pines	1-2	When new needles are nearly half grown (mid-June). Repeat 3 to 4 weeks later if frequent rains occur.	Chlorothalonil (Daconil, Bravo) Mancozeb (Dithane, Fore)
Cercospora blight	Juniper Redcedar	2+	Mid-June and late July. Additional sprays at monthly intervals may be necessary if	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture

			frequent rains occur in August and September. Use of a spreader-sticker may increase effectiveness.	
Dothistroma needle blight	Austrian pine	2	As needles are emerging (mid-May) and after new growth has occurred (mid- to late June).	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture
Phomopsis blight	Juniper Redcedar	2+	Every 7 to 10 days during wet periods in spring and summer (usually May to June).	Thiophanate-methyl (3336, Fungo) Mancozeb (Dithane, Fore)
Rhizosphaera needlecast	Spruce (mostly Colo. blue)	2+	When shoots are ½ to 2 inches in length (May) and 3-4 weeks later. If frequent rains occur, spray every 10-14 days through early July.	Chlorothalonil (Daconil, Bravo) Bordeaux mixture
Sirococcus shoot blight	Spruce (Colo. blue, Norway)	2	When shoots are ½ to 2 inches in length (May) and 3 to 4 weeks later.	Chlorothalonil (Daconil, Bravo)

JUNE - BROADLEAF TREE PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide
Aphids	Many trees	1+	Throughout the growing season as they appear (May to September).	Insecticidal soap (Safer) Horticultural oil/ Growing season oil Imidacloprid (Merit) Acephate (Orthene) Malathion Diazinon
Bronze birch borer	Birch	2	Spray trunk and large branches in late May. Repeat in 3 weeks.	Chlorpyrifos (Borer & Leaf Miner Spray, Dursban for commercial applicators) Lindane
Greenstriped mapleworm	Maple	1	When larvae appear (June). Repeat for second generation if needed.	Bacillus thuringiensis (Dipel) Carbaryl (Sevin)
Lace bugs	Sycamore Hackberry Elm, Oak Linden	1	When feeding damage (small yellow spots) and insects appear (June).	Insecticidal soap (Safer) Horticultural oil/ Growing season oil Imidacloprid (Merit) Acephate (Orthene) Malathion
Lilac (ash) borer	Ash	2	Spray trunk and large branches around May 10. Repeat in 3 weeks.	Chlorpyrifos (Borer & Leaf Miner Spray, Dursban for commercial applicators) Lindane
Mimosa webworm	Honeylocust	1	When webs first appear (early June). Repeat for second generation in August if	Bacillus thuringiensis (Dipel) Carbaryl (Sevin) Acephate (Orthene)

			needed.	Diazinon
Oystershell scale	Ash Maple	2	When eggs hatch and light- yellow crawlers appear (late May). Repeat in 7 to 10 days. Repeat at August egg hatch if needed.	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Acephate (Orthene) Malathion
Spider mites	Many trees	2	When mites are present (as early as April, but mostly June through August). Repeat in 7 to 10 days.	Dicofol (Kelthane) Insecticidal soap (Safer) Horticultural oil/ Growing season oil
Walnut caterpillar	Walnut	1	When caterpillars appear (June).	Carbaryl (Sevin)
Apple scab	Crabapple	5+	At 7 to 14-day intervals from prebloom (April) through rainy periods of growing season.	Chlorothalonil (Daconil) Thiophanate-methyl (3336, Fungo) Mancozeb (Dithane, Fore)
Cedar-apple rust	Crabapple Hawthorn	5+	As flower buds break (mid-April), at petal drop, and 3 or 4 additional sprays at 7 to 10-day intervals.	Chlorothalonil (Daconil) Mancozeb (Dithane, Fore)
Cherry leaf spot	Cherry	4+	At petal fall (May) and every 10 to 14 days as fruit matures.	Benomyl (Benlate)
Dutch elm disease	American elm	1	Preventive treatment: Trunk inject when leaves approach full size (late May). Therapeutic treatment: As soon as current year infections are seen (5% or less of crown infected; late June through August).	Thiabendazole (Arbotect)
		1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)
Oak wilt	Oak	1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)

## JULY -CONIFER PESTS

Insect/Disease	Tree	Appl	ication Number and Date	Pesticide
Aphids	Pine	1	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Imidacloprid (Merit) Acephate (Orthene) Diazinon
Pine bark adelgid	Pine	1+	Throughout the growing season as they appear (May to	Horticultural oil/ Growing season oil Imidacloprid (Merit)

			September).	
Pine needle scale	Pine Spruce	2-3	When eggs hatch and red crawlers appear (late May or early June). Repeat once or twice at 7 to 10-day intervals. Also when eggs hatch in July.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Acephate (Orthene) Diazinon Malathion
Pine tip moth	Pine	2-4	Third week of May and first week of July. Better control if also second week of June and third week of July.	Acephate (Orthene) Dimethoate Carbaryl (Sevin)
Twospotted spider mite	Juniper Pine Spruce	2	When mites are detected (April through summer). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Brown spot	Scotch & White pines	1-2	When new needles are nearly half grown (mid-June). Repeat 3 to 4 weeks later if frequent rains occur.	Chlorothalonil (Daconil, Bravo) Mancozeb (Dithane, Fore)
Cercospora blight	Juniper Redcedar	2+	Mid-June and late July. Additional sprays at monthly intervals may be necessary if frequent rains occur in August and September. Use of a spreader-sticker may increase effectiveness.	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture
Rhizosphaera needlecast	Spruce (mostly Colo. blue)	2+	When shoots are ½ to 2 inches in length (May) and 3-4 weeks later. If frequent rains occur, spray every 10-14 days through early July.	Chlorothalonil (Daconil, Bravo) Bordeaux mixture

JULY -BROADLEAF TREE PESTS

Insect/Disease	Tree	Appl	lication Number and Date	Pesticide
Aphids	Many trees	1+	Throughout the growing season as they appear (May to September).	Insecticidal soap (Safer) Horticultural oil/ Growing season oil Imidacloprid (Merit) Acephate (Orthene) Malathion Diazinon
Fall webworm	Cottonwood	1	When caterpillars and their webs appear (July).	Bacillus thuringiensis (Dipel) Carbaryl (Sevin) Acephate (Orthene) Diazinon
Peach tree borer	Peach	3	Apply to lower trunk and soil	Chlorpyrifos (Borer & Leaf Miner Spray,

	Cherry Plum		around July 1, July 25, and August 15.	Dursban for commercial applicators) Lindane
Spider mites	Many trees	2	When mites are present (as early as April, but mostly June through August). Repeat in 7 to 10 days.	Dicofol (Kelthane) Insecticidal soap (Safer) Horticultural oil/ Growing season oil
Dutch elm disease	American elm	1	Preventive treatment: Trunk inject when leaves approach full size (late May). Therapeutic treatment: As soon as current year infections are seen (5% or less of crown infected; late June through August).	Thiabendazole (Arbotect)
		1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)
Oak wilt	Oak	1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)

#### AUGUST -CONIFER PESTS

Insect/Disease	Tree	App	lication Number and Date	Pesticide
Aphids	Pine	1	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Imidacloprid (Merit) Acephate (Orthene) Diazinon
Pine bark adelgid	Pine	1+	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Imidacloprid (Merit)
Twospotted spider mite	Juniper Pine Spruce	2	When mites are detected (April through summer). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Zimmerman (Dioryctria) pine moths	Pine	2	Second week of April and second week of August.	Chlorpyrifos (Borer & Leaf Miner Spray; Dursban for commercial applicators; use lilac borer rate) Lindane
Cercospora blight	Juniper Redcedar	2+	Mid-June and late July. Additional sprays at monthly intervals may be necessary if frequent rains occur in August and September. Use of a spreader-sticker may increase effectiveness.	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture

AUGUST - BROADLEAF TREE PESTS

Insect/Disease	Tree	App	lication Number and Date	Pesticide
Aphids	Many trees	1+	Throughout the growing season as they appear (May to September).	Insecticidal soap (Safer) Horticultural oil/ Growing season oil Imidacloprid (Merit) Acephate (Orthene) Malathion Diazinon
Mimosa webworm	Honeylocust	1	When webs first appear (early June). Repeat for second generation in August if needed.	Bacillus thuringiensis (Dipel) Carbaryl (Sevin) Acephate (Orthene) Diazinon
Oystershell scale	Ash Maple	2	When eggs hatch and light- yellow crawlers appear (late May). Repeat in 7 to 10 days. Repeat at August egg hatch if needed.	Horticultural oil/ Growing season oil Insecticidal soap (Safer) Acephate (Orthene) Malathion
Peach tree borer	Peach Cherry Plum	3	Apply to lower trunk and soil around July 1, July 25, and August 15.	Chlorpyrifos (Borer & Leaf Miner Spray, Dursban for commercial applicators) Lindane
Spider mites	Many trees	2	When mites are present (as early as April, but mostly June through August). Repeat in 7 to 10 days.	Dicofol (Kelthane) Insecticidal soap (Safer) Horticultural oil/ Growing season oil
Dutch elm disease	American elm	1	Preventive treatment: Trunk inject when leaves approach full size (late May). Therapeutic treatment: As soon as current year infections are seen (5% or less of crown infected; late June through August).	Thiabendazole (Arbotect)
		1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)
Oak wilt	Oak	1	As soon as symptoms begin appearing or before.	Propiconazole (Alamo)

#### SEPTEMBER -CONIFER PESTS

Insect/Disease	Tree	Application Number and Date	Pesticide
Aphids	Pine	1 Throughout the growing season as they appear (May to	Horticultural oil/ Growing season oil Insecticidal soap (Safer)

			September).	Imidacloprid (Merit) Acephate (Orthene) Diazinon
Pine bark adelgid	Pine	1+	Throughout the growing season as they appear (May to September).	Horticultural oil/ Growing season oil Imidacloprid (Merit)
Spruce spider mite	Spruce Juniper Pine	2	When mites are detected (April to May, and September to October). Repeat in 7 to 10 days.	Horticultural oil/ Growing season oil NOTE: Oil will remove blue needle color. Insecticidal soap (Safer) Dicofol (Kelthane) Dimethoate (NOT for spruce) Isotox
Cercospora blight	Juniper Redcedar	2+	Mid-June and late July. Additional sprays at monthly intervals may be necessary if frequent rains occur in August and September. Use of a spreader-sticker may increase effectiveness.	Liquid copper (Tenn-Cop/Camelot) Bordeaux mixture

## SEPTEMBER -BROADLEAF TREE PESTS

Insect/Disease	Tree	Application Number and Date	Pesticide
Aphids	Many trees	1+ Throughout the growing season as they appear (M September).	